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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,283	03/04/2002	Theodore L. Wolf	DYC-10-5598	6591

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EXAMINER

SAETHER, FLEMMING

ART UNIT PAPER NUMBER

3677

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,283

Applicant(s)

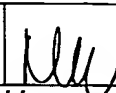
WOLF ET AL.

Examiner

Flemming Saether

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15, 16, 18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15, 16, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Objections

Claims 15, 16, 18 and 19 are objected to because of the following informalities: with the cancellation of claim 14, the dependency of claims 15, 16, 18 and 19 requires correction.

Claim Rejections - 35 USC § 112

Claims 1-13, 15, 16, 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The higher metal density as by forging being only at the splines is considered new matter. The "forged splines" as originally presented was not necessarily limited to only the splines as now required by the different densities.

Claim Rejections - 35 USC § 103

Claims 1, 3-7, 9-13, 15, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollinger in view of Wesley (US 2,378,610). Hollinger discloses a locknut and method comprising a body (11) having a threaded bore (14) with its length about equal to its diameter and an aperture (16) formed at the top end of the body including a plurality of triangular shaped splines elements (19') with planer side surfaces and a pointed linear edge extending from a top surface of the body to an actuating wall (15) which is provided at an angle relative thereto. The splines define an

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angle of about 60° to about 120° and have a pitch value of about 10 to about 24 and are configured with adjacent splines separated by a void. A deformable locking member (17) having an inner surface larger than the threaded bore and an outer surface engaged by the splines (column 3, lines 46-51) which inherently would include the engagement edge. The volume of the deformable locking member being greater than that of the aperture such that as the nut is tightened on a threaded rod, the deformable member is forced to flow against the threaded rod and an engaging surface (Figs. 5 and 6) which would provide both a sealing and a protection against loosening such as would be caused by vibration. As the nut body is further tightened or backed off the threaded rod the forces applied against the deformable member increase and reduce respectively. Hollinger is not specific on how the splines are formed. Wesley discloses locknut including a plurality of splines (17) which are formed by a forging operation (see Fig. 5). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the splines in Hollinger by a forging operation as disclosed in Wesley because Wesley discloses an efficient method of making a locknut as described therein. The efficient method including the forging as disclosed would be an economical method of making the locknuts. The specific dimension would have been recognized depending upon the particular application of the nut since it is well known to provide nuts of varying sizes depending upon its intended use.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollinger in view of Wesley as applied to claims 1 and 7 above, and further in view of

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Heighberger (US 3,938,571). Heighberger is relied upon for the material of the deformable member. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the deformable member of Hollinger out of polytetrafluorethylene as disclosed in Heighberger for its excellent quality of elastic memory as described therein.

In response to Remarks

As evident above, the examiner has maintained the rejection under 35 USC § 112 first paragraph. The examiner remains unconvinced that the forging (higher metal density) was originally disclosed as being only at the splines. The quoted text provided by the applicant nowhere states that the only the splines are forged. Indeed, other parts of the nut body may also be forged such as the threads and/or any tool engaging surfaces. The fact that claim 7 has providing the nut body as a separate step from forging the splines does not preclude other parts of the nut body from also being forged since other parts of the nut may also be forged after the nut body if provided in the same manner as the splines are forged. The examiner does not dispute the splines are forged to an increased density but, the applicant need to provide evidence that the remainder of the nut body is not forged.

Also, as evident above, the 35 USC §103 rejection combining Hollinger in view of Wesley has additionally been maintained. The examiner has considered applicant's remarks and generally agrees with the arguments. However, applicant argues the

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references individually and it is the combination of the references used to anticipate the claims. It has been settled that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The applicant does not argue why the combination would not be obvious or why the *combination* does not disclose all the claimed elements. Therefore, the rejection must be maintained.

In regards to the double patenting rejection, the terminal disclaimer has not yet been considered by the paralegal however, it is presumed to be proper thus avoiding any double patenting issues.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Flemming Saether
Primary Examiner
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